

MEAFORD

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plant**

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ONTARIO WATER RESOURCES COMMISSION

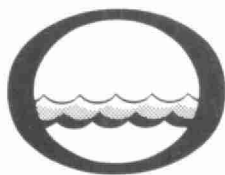
Division of Plant Operations

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Water management in Ontario

Ontario
Water Resources
Commission

135 St. Clair Ave. W.
Toronto 7
Ontario


We are pleased to present you with the Operating Summary for the water treatment facilities operated for you during 1968.

Both the financial and technical information presented should be of assistance to your present and future planning in this important phase of municipal activity.

A new format has been devised to allow greater readability with equally detailed content. We trust that this will meet with your approval.

Our staff wish to express their appreciation for your co-operation throughout the year.


D. S. Caverly,
General Manager.


D. A. McTavish, P. Eng.,
Director,
Division of Plant Operations.

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OCT 27 1969

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RESOURCES COMMISSION

ONTARIO WATER RESOURCES COMMISSION

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MEAFORD
water treatment plant

operated for

THE TOWN OF MEAFORD

by the

ONTARIO WATER RESOURCES COMMISSION

1968 ANNUAL OPERATING SUMMARY

FOREWORD

● This operating summary outlines the project's technical capabilities and financial status in 1968. Such information mirrors past and present performance, but a major intention is to anticipate the future -- to solve problems before they occur.

The new format in which this year's data are presented is designed to offer a higher level of readability than in the past, without a corresponding decrease in compactness, accuracy and detail.

Although your Regional Operations Engineer carries the major responsibility for the contents of the report, those involved in its preparation are attached to several Commission sections and divisions. The statistics section of the Division of Plant Operations compiled the information for the graphs and charts. The draughting section of the Division of Sanitary Engineering drew the graphs. The Division of Finance provided all cost data.

Only the close co-operation of these departments allowed the publication of this summary.

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'68 REVIEW

The average daily consumption of water was 0.9 mgd, with a midsummer maximum of almost twice that figure.

The quality of the raw water was fair. Rapid sand filtration removed approximately 50% of the turbidity.

The filtration plant is operated by the Meaford Public Utilities Commission.

PROJECT COSTS

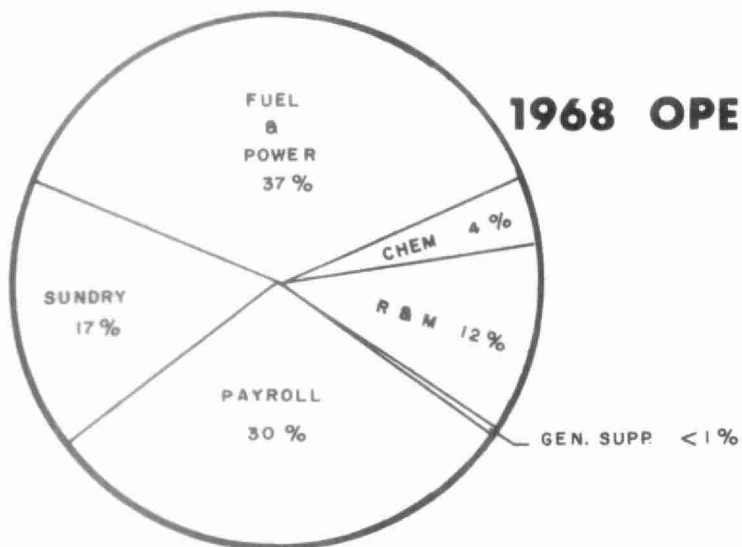
NET CAPITAL COST (Final)	
Long Term Debt to OWRC	<u>\$483,129.09</u>
Debt Retirement Balance at Credit	
(Sinking Fund) December 31, 1968	<u>\$128,052.54</u>
Net Operating	\$ 16,574.84
Debt Retirement	12,822.00
Reserve	2,290.71
Interest Charged	<u>27,124.51</u>
TOTAL	\$ <u>58,812.06</u>

RESERVE ACCOUNT

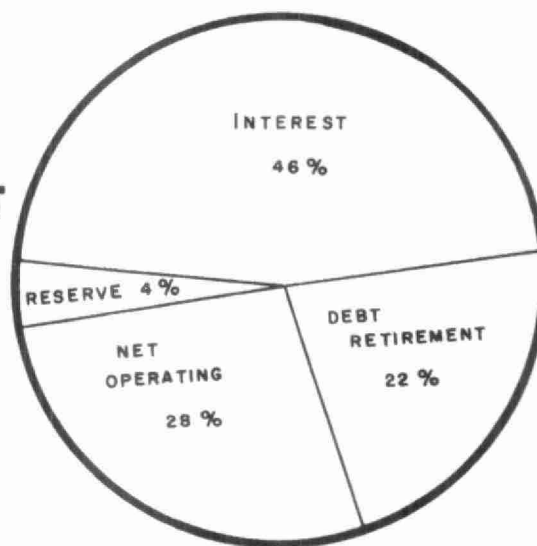
Balance at January 1, 1968	\$ 27,070.88
Deposited by Municipality	2,290.71
Interest Earned	<u>1,651.47</u>
	\$ 31,013.06
Less Expenditures	<u>-</u>
Balance at December 31, 1968	\$ <u>31,013.06</u>

Monthly Operating Costs

MONTH	TOTAL	PAYROLL	CASUAL	FUEL & POWER	CHEMICAL	GENERAL SUPPLIES	EQUIPMENT	REPAIRS & MAINTENANCE	SUNDRY	TRAVEL
JAN	-	-	-	-	-	-	-	-	-	-
FEB	966.66	399.45	-	532.30	-	-	-	13.91	21.00	-
MAR	93.79	-	-	-	-	1.37	-	-	92.42	-
APRIL	2392.32	1137.26	-	1085.38	-	-	-	139.63	30.05	-
MAY	1090.23	450.78	-	637.00	-	-	-	2.45	-	-
JUNE	5551.40	774.04	-	1210.63	106.13	-	-	1280.67	2179.93	-
JULY	1252.49	396.18	-	561.84	109.88	-	-	145.78	38.81	-
AUG	-	-	-	-	-	-	-	-	-	-
SEPT	1420.12	776.71	-	617.47	-	-	-	25.94	-	-
OCT	966.28	291.70	-	485.00	184.88	-	-	4.70	-	-
NOV	427.57	-	-	-	-	-	-	-	427.57	-
DEC	2413.98	713.98	-	1028.64	359.88	-	-	311.48	-	-
TOTAL	16574.84	4940.10	-	6153.26	760.77	1.37	-	1924.56	2789.78	-

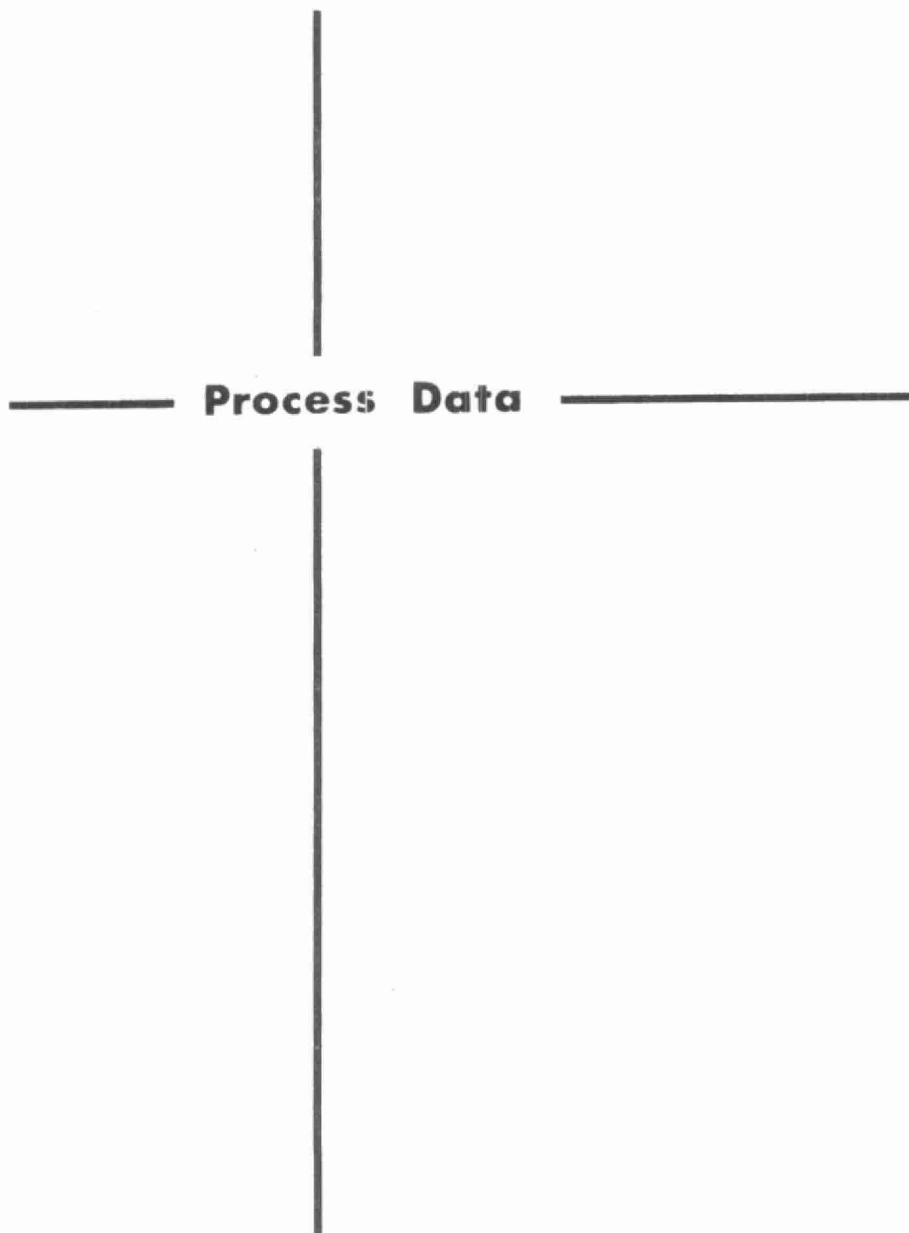


TOTAL ANNUAL COST



Yearly Operating Costs

YEAR	M. G. TREATED	TOTAL COST	COST PER THOUSAND GALLONS
1964	381.236	\$11,793.29	3 cents
1965	417.641	12,915.00	3 cents
1966	416.746	14,171.63	3 cents
1967	302.046	14,720.93	5 cents
1968	327.840	16,574.84	5 cents



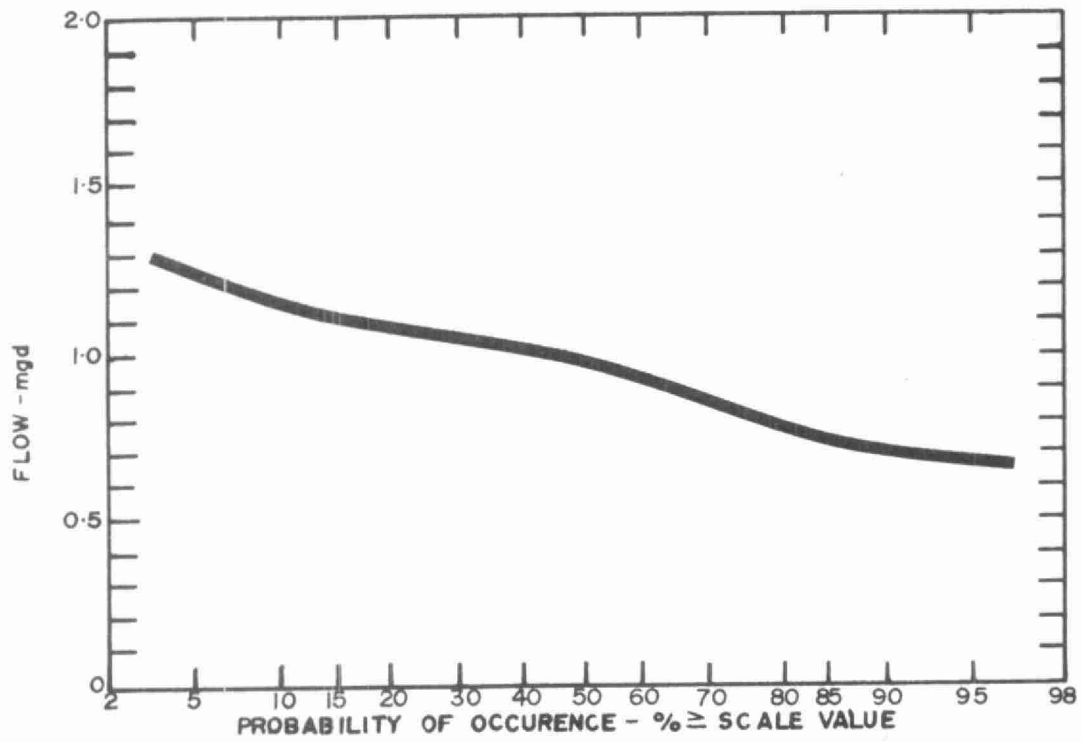
PLANT FLOWS

MONTH	TOTAL FLOW mg	AVERAGE DAILY FLOW mg	MAXIMUM DAILY FLOW mg	MINIMUM DAILY FLOW mg
JAN	26.79	0.86	1.08	0.53
FEB	23.60	0.81	0.93	0.58
MAR	25.73	0.83	0.96	0.62
APR	24.47	0.82	1.00	0.58
MAY	26.58	0.86	1.00	0.58
JUN	27.69	0.92	1.23	0.61
JUL	36.52	1.18	1.74	0.62
AUG	28.60	0.92	1.27	0.62
SEPT	26.89	0.90	1.05	0.59
OCT	28.75	0.93	1.08	0.59
NOV	26.62	0.89	1.04	0.64
DEC	25.59	0.83	1.07	0.62
TOTAL	327.83	-	-	-
AVERAGE	27.32	0.90	-	-

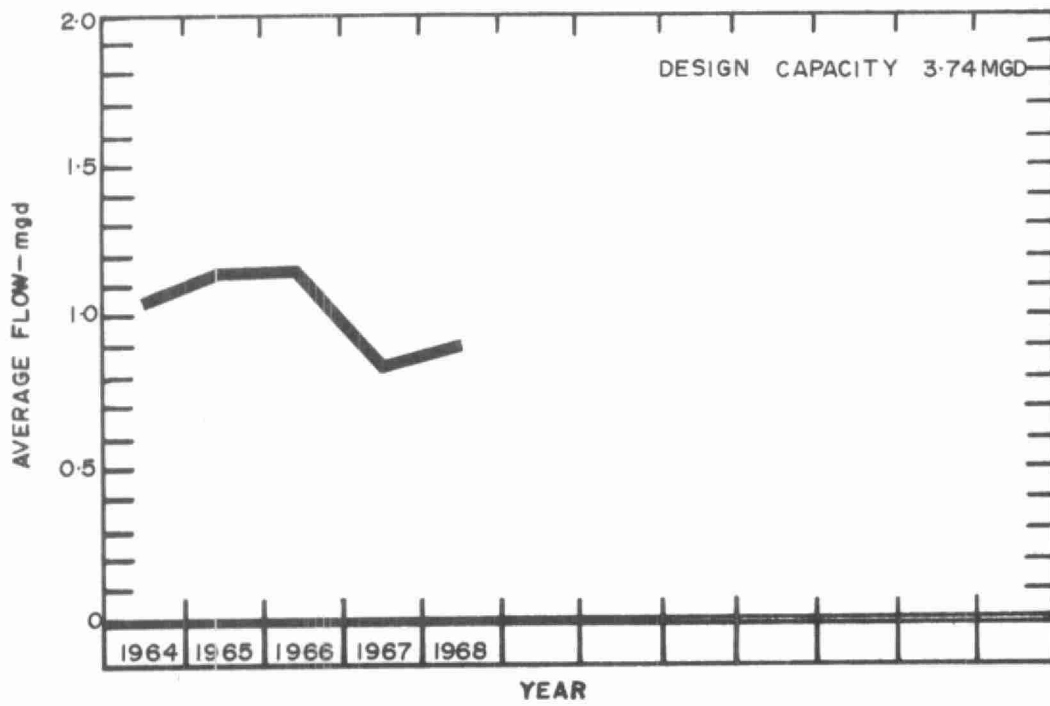
COMMENTS

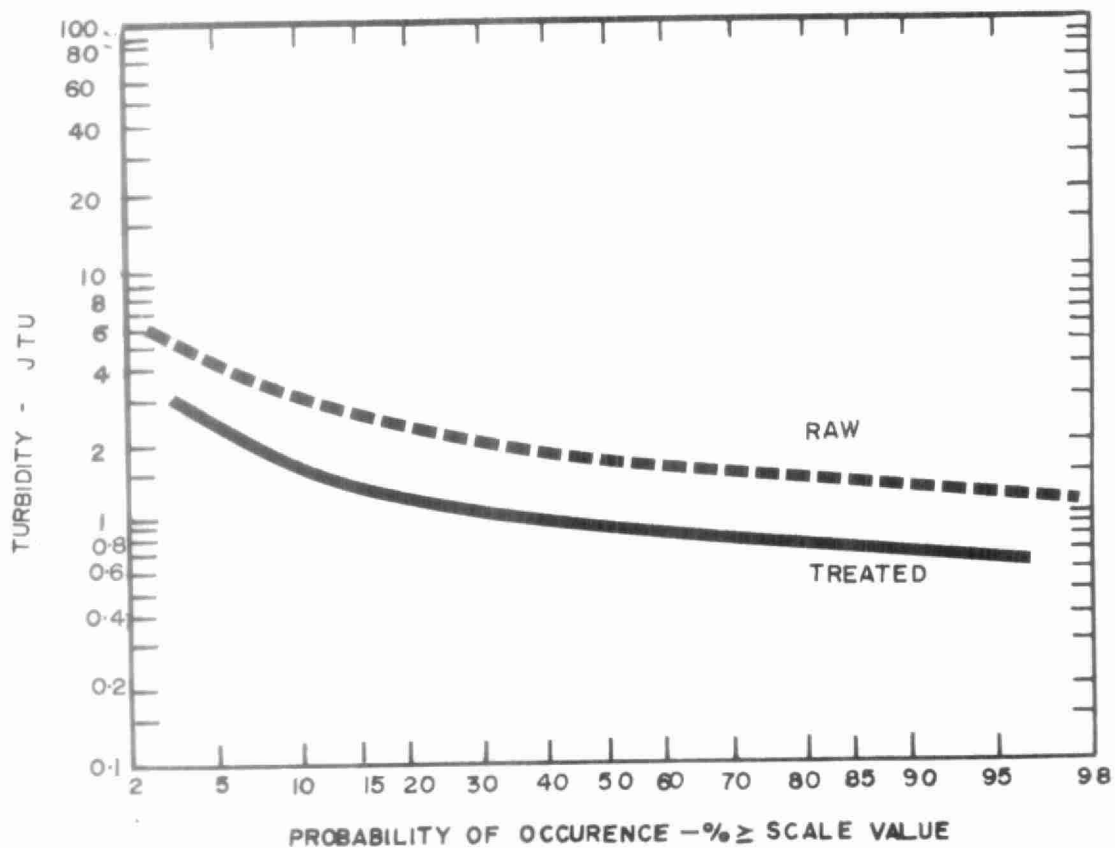
No chemicals are added before filtration. The filtered water is chlorinated prior to distribution.

The probability of occurrence graph indicates that there is a 40% probability of the flow being in excess of one mgd.

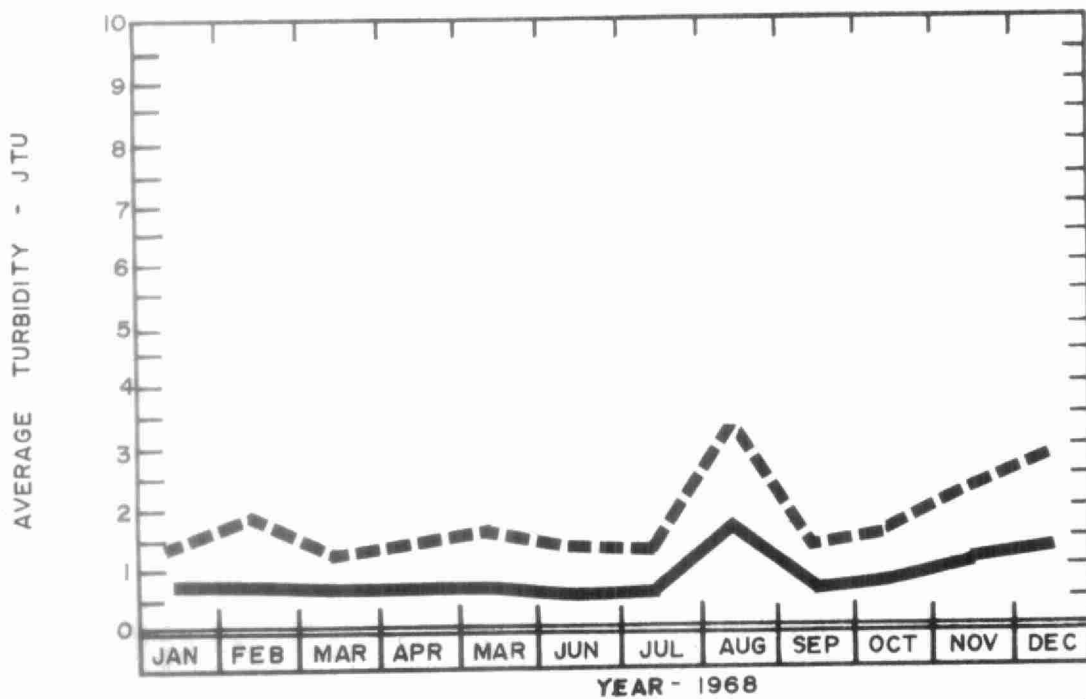


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TURBIDITY



WATER QUALITY

CHEMICAL PROPERTY	RAW WATER				TREATED WATER				DESIRABLE STANDARDS
	No. of Samples	Avg.	Max.	Min.	No. of Samples	Avg.	Max.	Min.	
HARDNESS mg/l CaCO_3	1	92	92	92	1	92	92	92	80-100
ALKALINITY mg/l CaCO_3	1	75	75	75	1	72	72	72	30-100
IRON mg/l Fe	1	0.05	0.05	0.05	1	0.10	0.10	0.10	0.3
COLOUR Units	1	5	5	5	1	5	5	5	5
CHLORIDE mg/l Cl	1	6	6	6		7	7	7	250

CHLORINATION AND DISINFECTION

MONTH	COLIFORM				CHLORINE		
	RAW WATER		TREATED WATER		Total Used (lbs.)	Prechlor. Dosage mg/l	Postchlor. Dosage mg/l
	No. of Samples Taken	Avg. Density No. /100ml	No. of Samples Taken	No. with Coliform o/100ml			
January	5	1	14	0	257.0	-	1.0
February	4	12	12	0	218.5	-	0.9
March	4	2	12	0	238.0	-	0.9
April	5	47	15	0	226.5	-	0.9
May	4	1	12	1	238.5	-	0.9
June	4	20	12	0	247.0	-	0.9
July	3	33	9	0	329.5	-	0.9
August	3	102	9	0	271.0	-	0.9
September	5	142	15	0	257.5	-	1.0
October	4	128	12	0	285.5	-	1.0
November	4	224	12	0	266.0	-	1.0
December	4	64	15	2	248.5	-	1.0
TOTAL	-	-	-	-	3083.5	-	-
AVERAGE	4	65	12	0	257.0	-	0.9



RECOMMENDATIONS

Due to the high midsummer demand it may be necessary to purchase an electric motor for the stand-by pump. This would obviate the need for running the Diesel engine during periods of high water demand.

The cost of installing a motor and controls would be approximately \$7,500.00.

The reserve fund stands at more than \$30,000.00

Date Due

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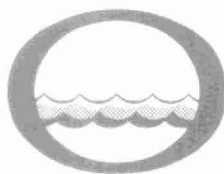
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